Overview:

Kings Mountain National military Park, the site of the Battle of Kings Mountain hailed by Thomas Jefferson as the battle "that turned the tide of success which terminated the Revolutionary War," is an excellent example of how landscape and geography can affect the outcome of events. Major Patrick Ferguson and his Loyalist battalion of 1,100 men, equipped with the standard issue flintlock muzzle loaders known as the Brown Bess, established their camp on the ridge of Kings Mountain some 150 feet above the surrounding area and awaited the arrival of the enemy. The Patriot force lead by Isaac Shelby, William Campbell, John Sevier and others approached the mountain from its base. This group of determined, independent, mostly Scott-Irish men carried long rifles and came searching for the man, Patrick Ferguson, that had threatened their way of life by saying that he would hang the leaders of those that did not submit to the crown and lay the countryside waste with fire and sword. In a little over an hour, Patrick Ferguson along with 225 of his men were dead, 160 wounded and the remainder captured.

Objective(s)

Guiding Questions:

- How was a group of men, basically untrained in the ways of battle, able to defeat a better trained and more organized group of Loyalist who held a superior location on the battlefield?
- How did the topography of the land affect the outcome of the battle?

Critical Content: The topography of the area and how it affected the outcome of the Battle of Kings Mountain.

Students Objective: Students will …

- gain an understanding of a topographic map
- demonstrate their basic understanding of how to read a topographic map
- locate Kings Mountain on a map
- calculate the slope of Kings Mountain
- calculate the area of Patrick Ferguson's camp
- infer reasons for the outcome of the battle
- provide details to support their inferences

Vocabulary:

Appalachian Mountains
geography
topography
topographic map
elevation
contour lines
contour intervals
relief

Inner Coastal Plain
Blue Ridge
Outer Coastal Plain
Coastal Plain
Sand Hills
Piedmont

= 6 landform regions of SC

Standards:

South Carolina

Social Studies Standards:

3-1.1 Categorize the six landform regions of South Carolina—the Blue Ridge, the Piedmont, the Sand Hills, the Inner Coastal Plain, the Outer Coastal Plain, and the Coastal Zone—according to their climate, physical features, and natural resources.

3-1.2 Describe the location and characteristics of significant features of South Carolina, including landforms; river systems such as the Pee Dee River Basin, the Santee River Basin, the Edisto River Basin, and the Savannah River Basin; major cities; and climate regions.

3-3.3 Summarize the course of the American Revolution in South Carolina, including the role of William Jasper and Fort Moultrie; the occupation of Charles Town by the British; the partisan warfare of Thomas Sumter, Andrew Pickens, and Francis Marion; and the battles of Cowpens, Kings Mountain, and Eutaw Springs.

8-2.5 Summarize the role of South Carolinians in the course of the American Revolution, including the use of partisan warfare and the battles of Charleston, Camden, Cowpens, Kings Mountain and Eutaw Springs.

Science Standards:

3-3.6 Illustrate Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.

5-3.3 Compare continental and oceanic landforms.

8-3.9 Identify and illustrate geologic features of South Carolina and other regions of the world through the use of imagery (including aerial photography and satellite imagery) and topographic maps.

Reading and Understanding Topographic Maps

Background:

*****This section of the lesson introduces the basic concept of topography and is ***** included as a resource if needed.

Reading a topographic map can be a very difficult for some students. The idea of turning a 3-dimensional object into a 2-dimensional map can seem a bit strange. Students first encounter this when viewing a map of our globe. Where students may quickly accept the distortions of the 3-D globe when placed on a 2-D map, the idea that a map can accurately represent a mountain or a valley may be more challenging.

Lesson Preparation:

A visual representation or teacher modeling may make this concept easier to obtain. Options for creating a visual, hands-on lesson are listed below. Your choice of option will be determined by the age level and ability of your students.

Option 1: Teacher Demo
"Potato Mountain" [http://ecosystems.psu.edu/youth/sftrc/lesson-plans/earth-sciences/lesson-plans-pdfs/potato-mtn]

Materials needed
- Potato
- "veg-o-matic" food slicer or knife to slice potato

This option involves taking a potato and carving it into the shape of a hill and a valley and then slicing the potato into slices to represent the contour lines on a topographic map

Option 2: Student hands-on activity

Materials needed
- Clay or "play-dough"
- String or dental floss

This option replaces the potato and sharp objects with clay and string to make the activity more student friendly.

Option 3: Teacher Demo **keep in mind any food allergies your students may have**
"ALEX Lesson plan: Let Them Eat Cake! – Topography Lesson"
http://alex.state.al.us/lesson_view.php?id=29829

Materials needed

cake mix(white)	icing	paper plates
food coloring	dental floss	napkins

Mix cake mix according to directions. Divide mix into 2 bowls and color one bowl.
Bake each color in a separate 9X13 pan. Cool.
Heat icing in microwave to thin and lightly ice each layer. Stack to form a 2 layer cake.
Cut layered cake in half and stack to form a 4 layer cake. Ice the cake to hide the colored layers.

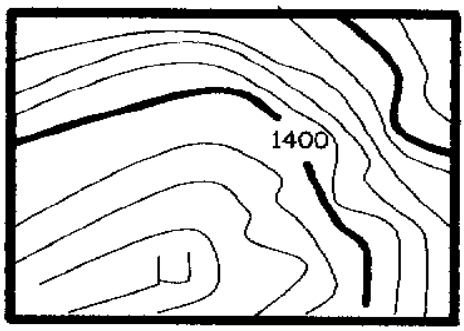
All options also include the use of the attached worksheets and quiz.

What is a Topographic map?

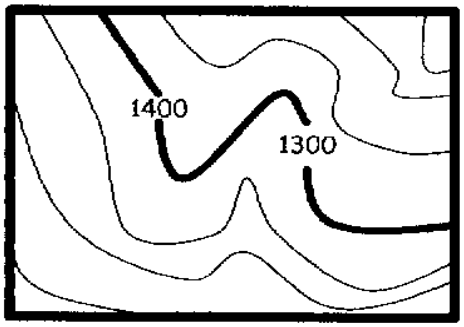
Road or street maps are flat, two-dimensional maps. Topographic maps are three dimensional maps. Topographic maps contain thin curved lines called contour lines that connect areas of equal elevation. The ground along a contour line doesn't go uphill or downhill. The spacing between contour lines tells you whether the land is flat or steep. If the lines are close together, this means that the elevation of the land is changing quickly so the area is steep. If the lines are far apart, this means that the elevation is staying the same throughout that entire area, or is flat. Each contour line represents a different elevation. Every fifth line on a topographic map is labeled with the actual elevation. You must use your math skills to determine the elevation of the lines in between. Elevation is determined by the distance above sea-level. The relief of the map is the difference between the highest and lowest points on the map.

Contour lines never cross, never split, or branch off. They always eventually connect with themselves, and they always connect areas that are the same elevation.

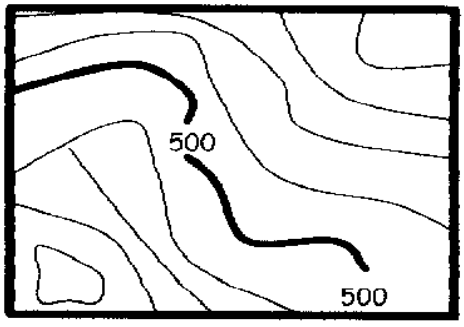
Identify the problem with each topographic map.



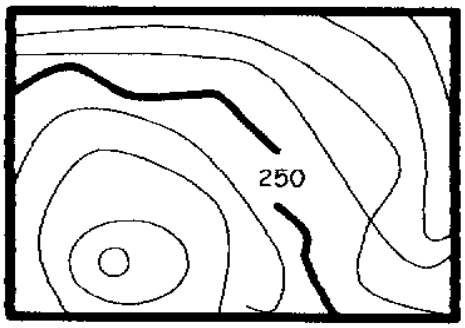
A. _____



B. _____



C. _____



D. _____

* adapted from Penn State / 4-H publication *Trees + Me = Forestry*

Reading a Topographic Map

1. What is the lowest point on the map?

_____

2. What is the highest point on the map?

_____

3. What is the relief of this map? Explain.

_____

_____

_____

4. What are the measurements of the unlabeled contour lines?

_____

_____

5. What is the measure of the contour line along the water's edge?

_____

6. What would happen if the water level rose 10 feet overnight?

_____

_____

7. How would you describe the area around the house? (steep, relatively flat, hilly) Explain your answer._____

_____

READING A TOPOGRAPHIC MAP - B*

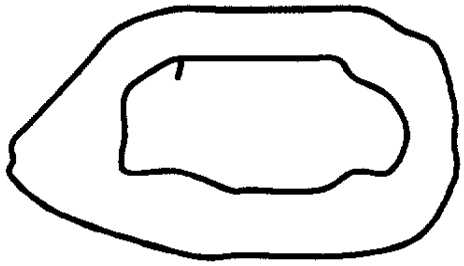
PART 2. Match each side view image with the appropriate set of contour lines.

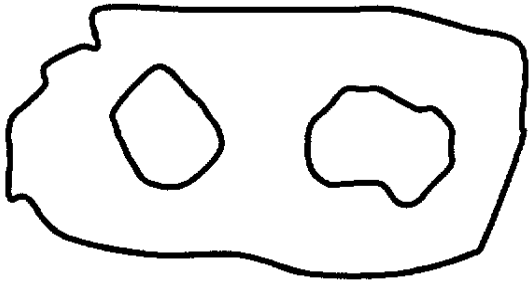
1. _____ 

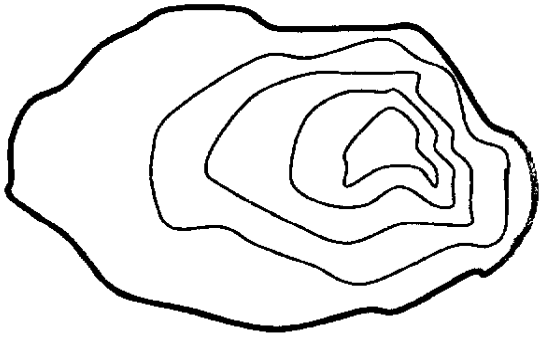
2. _____ 

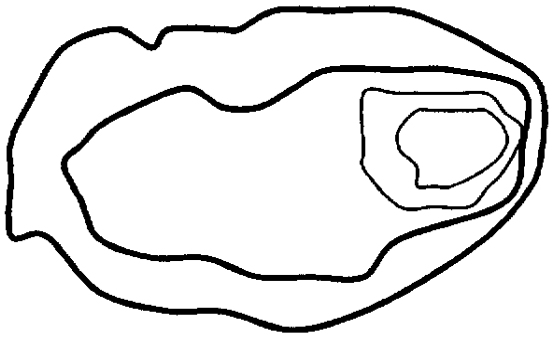
3. _____ 

4. _____ 

A. 

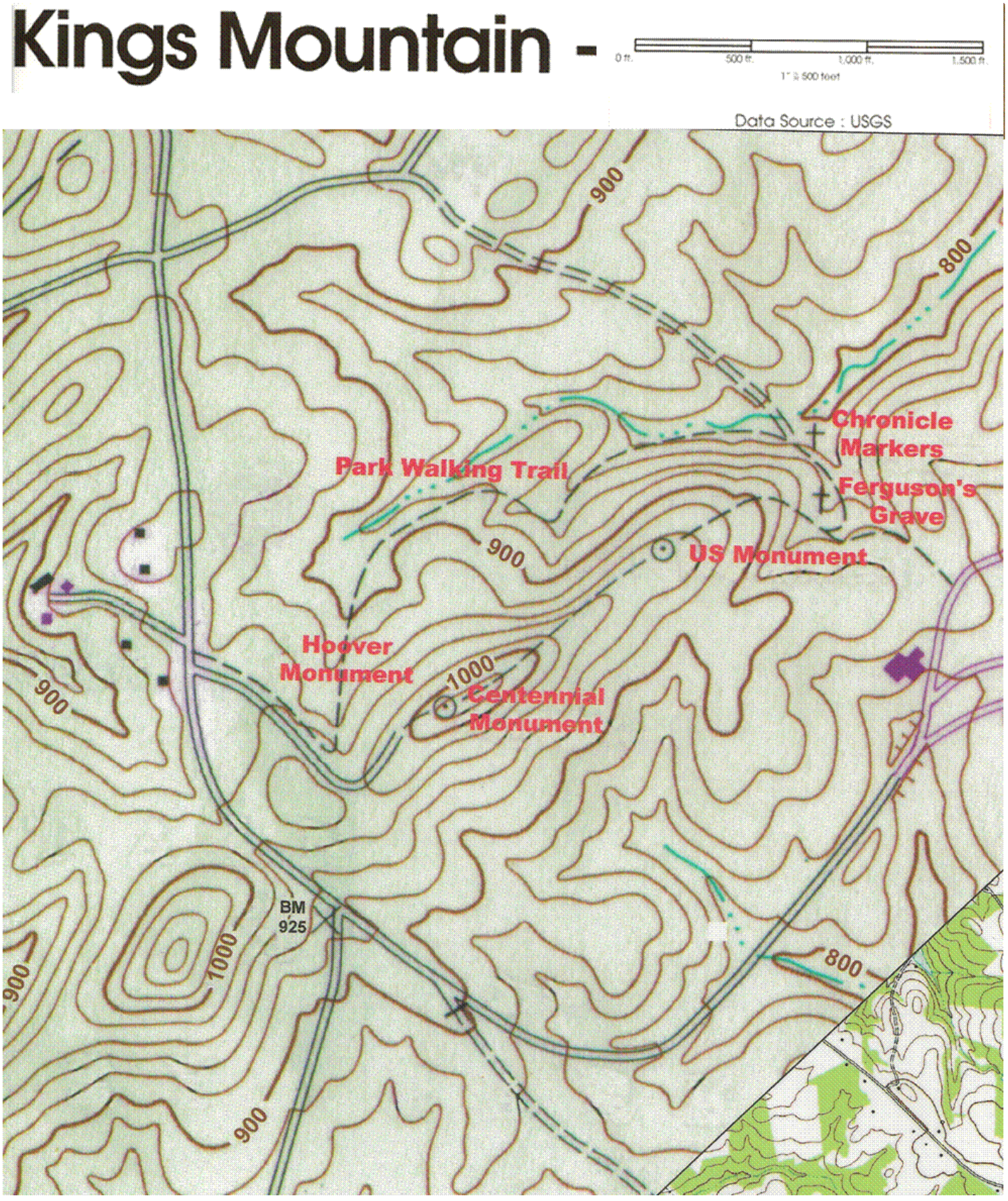
B. 

C. 

D. 

* adapted from *The Language of Maps*, 1983 by Pitman Learning Inc.

Kings Mountain Battlefield



Readings

"*Kings Mountain was a battle of ultimate simplicity.*

Ferguson and his Tory militia, some of them arrayed in red coats and uniforms, intended to hold the crest of this mountain spur and by soundly defeating the patriot assailants break decisively any spirit of resistance that remained in the backcountry.

The ridge they had chosen was shaped roughly like a human footprint or the paddle of a canoe. It extended northeast some 600 yards and varied in width from 60 to 120 feet. Its heavily wooded slopes, seamed with occasional ravines, led to a rocky, almost treeless summit. The Scottish major obviously considered such rough, boulder-strewn terrain to be ideal fortifications, for he issued no orders for breastworks or redoubts to be constructed.

The patriot colonels and their men, on the other hand, intended to dislodge the defenders from the ridge and end forever the Tory threat to their homes and freedom. … Trees and rocks could provide cover for their ascent. The open crest would expose their enemy to the deadly aim of the long rifles. Squirrel hunters, Indian fighters, marksmen of remarkable accuracy, they were at home among woods and ledges."

(with Fire and Sword)

Dykeman, Wilma. "Kings Mountain: Harvest of Death." *With Fire and Sword: The Battle of Kings Mountain, 1780*. Washington: Office of Publications, National Park Service, U.S. Dept. of the Interior ; for Sale by the Supt. of Docs., U.S. Govt. Print. Off., 1978. N.

Lieutenant Hollingsworth and Sergeant Tate came over with final instructions. "Secure your horses here. Leave everything except your firearms. There won't be any need for swords in this fight. The brush is too thick. It's the rifles that'll do the work today, ladies," Hollingsworth said.

It was a good thing we didn't need swords because only officers carried swords to this fight.

"They've got British issue Brown Bess muskets which can't hit the broad side of a barn," Tate said. "Besides, they'll be aiming downward at a steep angle: they'll likely shoot their buck and balls over our heads."

"Yeah, but they can reload those muskets twice as fast as we can," Collins whispered…

Zeiss, Anthony. *Backcountry Fury: A Sixteen-year-old Patriot in the Revolutionary War*. Boone, NC: Parkway, 2010. 80-81. Print.

James Collins's account stated,

We were soon in motion every man throwing four or five balls in his mouth to prevent thirst, also to be in readiness to reload quickly. The shot of the enemy soon began to pass over us like hail; the first shock was quickly over, and for my own part, I was soon in a profuse sweat. My lot happened to have been in the centre, where the severest part of the battle was fought. We soon attempted to climb the hill, but were fiercely charged upon and forced to fall back to out first positions; we tried a second time, but met the same fate; the fight then seemed to become more furious. Their leader; Ferguson, came in full view, within rifle shot as if to encourage his men, who by this time were falling very fast: he soon disappeared. We took to the hill a third time; and the enemy gave way; when we had gotten near the top, some of our leaders roared out, " Hurra, my brave fellows! Advance! They are crying for quarter."

By this time, the right and left had gained the top of the cliff: the enemy was completely hemmed in on all sides, and no chance of escaping and their leader had fallen.

Dunkerly, Robert. "James Collins's Account." *The Battle of King's Mountain: Eyewitness Accounts*. Charleston, SC: History, 2012. 33-34. Print.

Battlefield By Commanders

Quiz

After viewing the Kings Mountain Battlefield Topographic Map and the Battlefield Loyalist – Patriot Map, answer the following questions.

1. List the 5 sights marked on the map and their approximate elevation.

Monuments /Markers	Elevation
1.	
2.	
3.	
4.	
5.	

2. How far from the Centennial Monument to the US Monument.

3. After reading the accounts of the battle listed above, describe the battle as the soldier's did. Explain the battle field through their eyes.

4. After comparing the topographic map of Kings Mountain and the Battlefield by Commanders map, describe the topography of each group of soldiers approach to the battlefield.

5. Based on the maps and the reading, explain why you think the Battle of Kings Mountain resulted in a victory for the Patriots and support your beliefs.

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Dunkerly, Robert. "James Collins's Account." *The Battle of King's Mountain: Eyewitness Accounts*. Charleston, SC: History, 2012. 33-34. Print.

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Zeiss, Anthony. *Backcountry Fury: A Sixteen-year-old Patriot in the Revolutionary War*. Boone, NC: Parkway, 2010. 80-81. Print.